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BODY COMPOSITION ESTIMATION METHOD, BODY COMPOSITION ESTIMATION APPARATUS AND RECORDING MEDIUM RECORDING BODY COMPOSITION ESTIMATION PROGRAM

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Abstract of JP 2000139867 (A)

PROBLEM TO BE SOLVED: To improve reliability by making the ratio of the amount of the extracellular fluid and the amount of the intracellular fluid approximately equal to a ratio advocated in physiology, etc.

SOLUTION: This body composition estimation method feeds the probe current of multifrequencies to the testee's body, calculates the vital electric impedances R_0 and R_∞ at the time of the frequency 0 Hz and frequency infinity of the testee's body and estimates at least one of the amount of the extracellular fluid ECF or the amount of the intracellular fluid ICF by using equation (1) or equation (2) in the equations. H denotes the body height of the testee and A, B, Λ denote constants.

$$ECF = \frac{AH^2}{R_\infty} \times \frac{1}{1 + \frac{R_0 - R_\infty}{R_\infty} \frac{H/\Lambda}{\tanh(H/\Lambda)}}$$

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$$ICF = \frac{BH^2}{R_\infty} \times \frac{\frac{R_0 - R_\infty}{R_\infty} \frac{H/\Lambda}{\tanh(H/\Lambda)}}{1 + \frac{R_0 - R_\infty}{R_\infty} \frac{H/\Lambda}{\tanh(H/\Lambda)}}$$

II